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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/037,971	10/24/2001	Dan A. Steinberg	ACT141P (11671003)	7497	
75	90 04/16/2004		EXAMINER		
JONATHAN D. BASKIN			KNAUSS,	KNAUSS, SCOTT A	
EDWARDS &	ANGELL, LLP				
P.O. BOX 5587	⁷ 4		ART UNIT	PAPER NUMBER	
BOSTON, MA 02205			2874		
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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)	01
	10/037,971	STEINBERG ET AL.	
Office Action Summary	Examiner	Art Unit	
	Scott Alan Knauss	2874	
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orrespondence address	
A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply If NO period for reply is specified above, the maximum statutory period w Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	66(a). In no event, however, may a reply be time within the statutory minimum of thirty (30) days fill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONEI	ely filed will be considered timely. the mailing date of this communic (35 U.S.C. § 133).	eation.
Status			
1) Responsive to communication(s) filed on 10 Fe 2a) This action is FINAL. 2b) This 3) Since this application is in condition for allowan closed in accordance with the practice under E	action is non-final. ace except for formal matters, pro		s is
Disposition of Claims			
4) Claim(s) 25-44 is/are pending in the application 4a) Of the above claim(s) is/are withdraw 5) Claim(s) 32 and 35-44 is/are allowed. 6) Claim(s) 25-31,33 and 34 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/or	vn from consideration.		
Application Papers			
9) The specification is objected to by the Examiner 10) The drawing(s) filed on is/are: a) access applicant may not request that any objection to the conference of the	epted or b) objected to by the Edrawing(s) be held in abeyance. See on is required if the drawing(s) is obj	37 CFR 1.85(a). ected to. See 37 CFR 1.12	
Priority under 35 U.S.C. § 119			
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority documents 2. Certified copies of the priority documents 3. Copies of the certified copies of the priori application from the International Bureau * See the attached detailed Office action for a list of	have been received. have been received in Application ity documents have been receive (PCT Rule 17.2(a)).	on No d in this National Stage	
Attachment(s)			
 Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-948) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 	4) Interview Summary (Paper No(s)/Mail Da 5) Notice of Informal Pa 6) Other:		

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DETAILED ACTION

Response to Amendments / Arguments

1. Applicant's response filed 2/10/04 has been entered and carefully considered by the examiner. The previous grounds of rejection have been withdrawn, and, in view of new claims 25-44, the following new grounds of rejection are applied. This action is made **FINAL**.

Claim Rejections - 35 USC § 102

- 2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
- 3. Claims 25,26 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Kakii et al, previously cited by the examiner.

Regarding claim 25, Kakii discloses in fig. 11B:

A chip #1 having the front, back and main surfaces with a groove in the main surface for holding a fiber

A mount #41 made of molded plastic (a type of polymer) – see col. 9, lines 55-57, the mount having a channel receiving the chip.

Wherein the chip is adhesively secured in the channel (see col. 9, line 67 - col. 10, line 2), such that the front and main surfaces are exposed, the channel being longer than the chip, providing a recessed area behind the chip.

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Regarding claim 26, since the mount #41 has a shape which conforms to the sides of chip #1, it can be considered to be "molded" to the chip.

Regarding claim 31, figs. 10a and 10b disclose the use of a rubber boot #13 serving as a strain relief assembly extending from the back portion of the molded mount.

4. Claims 33 and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Demangone, previously cited by the examiner.

Regarding claim 33, Demangone discloses in figs. 5-6a a fiber array half with all the limitations set forth in the claim including:

A first chip #38 having at least one groove formed in a top surface and extending longitudinally from a front face #48 to a back face #41, the chip having a bottom, the grooves receiving optical fibers.

A molded mount #72 consisting of polymer material (see col. 4, lines 42-47) having top and bottom portions, an open channel being formed through the top portion, being configured to receive the chip for mounting therein.

The chip being rigidly secured within the channel, the channel configured to provide exposure of the front and top of the chip.

Furthermore, the slanted sides of chip #38 can be considered to be a "re-entrant" shape (as they have substantially the same shape as shown in the current application), to which the mount #72 conforms, locking the chip into the channel.

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Regarding claim 34, it is apparent from fig. 6, that the corners of chip #38 and mount #72 are configured to provide the "re-entrant" shape

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kakii et al.

Regarding claim 28, Kakii discloses the use of polymer material, but does not specify the use of noncrystalline material.

Nevertheless, since Kakii does not limit the type of material to be used for the mount, and since noncrystalline polymer materials are well known in the art, it would have been obvious to one of ordinary skill in the art to select known materials to form the housing of Demangone, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Regarding claim 29, Kakii discloses that chip #1 may be silicon (see col. 9, lines 29-31) and may be single crystal (col. 3, lines 34-36). However, Kakii does not explicitly state "single crystal silicon".

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Nevertheless, v-grooved single crystal silicon substrate are very well known in the art, and it would have been obvious to one of ordinary skill in the art to use known types of silicon substrates for the purpose of holding optical fibers.

Regarding claim 30, Kakii discloses in figs. 8-12 the use of a chip #1, which may be silicon (see col. 5, lines 65-68) and extends from the front portion of the mount, but does not disclose whether the chip can extend from the mount for up to 100 micrometers.

Nevertheless, since there is no stated criticality for such an extension distance, it would have been a mere matter of design choice to one of ordinary skill in the art to adjust the amount by which chip #1 extends to any desired distance. Furthermore, it has been held that, where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art.

8. Claims 25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2-272506 (Hirao et al).

Regarding claim 25, Hirao discloses in figs. 2 and 13 a fiber array device comprising:

A chip #4 having a main surface, front and back faces, and at least one groove in the main surface for holding a fiber, the groove extending from the front to the back face

A mount #3 holding the chip, the mount having a channel for receiving the chip.

The chip being rigidly secured in the channel (see fig. 2), the channel being configured so that the front and main surface of the chip are exposed, the channel being longer than the chip, leaving a recessed area behind the chip.

Hirao does not discloses (1) the mount being molded polymer or (2) the chip being secured with adhesive.

Nevertheless, with regards to (1), in consultation with a translator it was found that Hirao does not limit the material of which the mount is to be made, and since molded mounts for holding chips are known in the art (see for example Kakii above) it would have been obvious to modify Hirao to provide a molded mount of polymer for the purpose of providing a hard, lightweight housing to protect chip #4.

Second with regards to (2), it is further known to fix chips in place using adhesive (see again Kakii above), and thus it would have further been obvious to use adhesive for the purpose of fixing chip #4 in place within mount #3.

Regarding claim 27, Hirao discloses in fig. 13 a main surface of the chip being in the same plane as a surface of the mount in which the channel is formed.

Allowable Subject Matter

9. Claim 32 and 35-44 are allowed.

Regarding claim 32, prior art fails to disclose a fiber array device as set forth in the claim, where the chip is rigidly secured within the channel, the channel is longer than the chip providing a recessed area behind the chip, and the chip and mount are configured for providing a press fit and frictional securement therebetween.

Regarding claims 35,36 and 37, these claims contain the allowable subject matter of original claims 16,17 and 20, respectively, and are thus also allowable. Claim 38 is allowable for depending from claim 37.

Regarding claims 39-44, prior art fails to disclose a fiber array having first and second chips in first and second molded polymer mounts, where each mount has a channel longer than the chip, providing a recessed area behind the chip, where the main surfaces of each chip faces each other.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Alan Knauss whose telephone number is (571) 272-2350. The examiner can normally be reached on 9-5 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Scott Knauss Art Unit 2874

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